

CLAIMS

1. A fume extractor for extracting fumes from a bore of a barrel of a gun comprising a main reservoir surrounding the said barrel; an inlet reservoir also surrounding the barrel and communicating with the bore of the barrel via a first set of ports and with the main reservoir via a second set of ports; and an auxiliary reservoir also surrounding the barrel of the gun and communicating with the main reservoir via a third set of ports and with the bore of the barrel via a fourth set of ports, the arrangement being such that the main reservoir is pressurised via both the inlet and auxiliary reservoirs when the gun is fired and further such that the fumes in the barrel are extracted by the release of pressure in the main and auxiliary reservoirs via the fourth set of ports.
2. A fume extractor according to claim 1 wherein each port of the second set is provided with a check valve, the arrangement being such that the check valves allow passing of the fumes from the inlet reservoir to the main reservoir via the second set of ports, but restricts reverse flow of the fumes from the main reservoir to the inlet reservoir.
3. A fume extractor according to claim 2 wherein the inlet reservoir is sandwiched between the main reservoir and the barrel of the gun.

4. A fume extractor according to claim 3 wherein the auxiliary reservoir is also sandwiched between the main reservoir and the barrel of the gun and is located adjacent the inlet reservoir on a muzzle brake end thereof.

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5. A fume extractor according to claim 4 wherein the first set of ports is a plurality of ports distributed circumferentially around the barrel and extending perpendicular to the longitudinal axis of the barrel.

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6. A fume extractor according to claim 5 wherein the fourth set of ports is also in the form of a plurality of ports distributed circumferentially around the barrel and which slant, radially outwardly, in the direction of a muzzle brake of the gun.

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7. A fume extractor according to any one of the preceding claims wherein the inlet and auxiliary reservoirs are partly defined by a first tubular sleeve having end walls; and a separating wall, which separates the inlet and auxiliary reservoirs.

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8. A fume extractor according to claim 7 wherein the first tubular sleeve concentrically surrounds the barrel, with the end and separating walls sealingly abutting the outside of the barrel.

9. A fume extractor according to claim 8 wherein an O-ring is provided between the first tubular sleeve and the barrel to create an airtight seal between them.

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10. A fume extractor according to any one of claims 7 to 9 wherein the main reservoir is partly defined by a second tubular sleeve concentrically surrounding the first tubular sleeve, as well as by two annular end caps for sealingly engaging the second tubular sleeve and the first tubular sleeve.

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11. A fume extractor according to claim 10 wherein an O-ring is provided between the first tubular sleeve and each end cap to create an airtight seal between them.

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12. A fume extractor according to claim 11 wherein an O-ring is located between the second tubular sleeve and each end cap to create an airtight seal between the second tubular sleeve and each end cap.

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13. A fume extractor according to any one of the preceding claims provided with a retaining ring for retaining the fume extractor in position on the barrel, the retaining ring being releasably connectable to the barrel.

14. A fume extractor according to claim 13 wherein the retaining ring is connected to the barrel intermediate its ends, towards the muzzle brake end thereof and to one end of the fume extractor.

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15. A fume extractor according to claim 14 wherein the retaining ring is provided with an internal screw thread for screwing onto a complimentary thread provided on the outside of the barrel.
- 10 16. A fume extractor according to claim 15 wherein the retaining ring is provided with a set of holes, for receiving urging screws, for urging the fume extractor in a direction towards the retaining ring for removal of the fume extractor from the barrel.
- 15 17. A barrel of a gun having a fume extractor according to any one of claims 1 to 16.
18. A gun having a fume extractor according to any one of claims 1 to 16.
- 20 19. A fume extractor for a barrel of a gun substantially as herein described and as illustrated in the accompanying drawings.